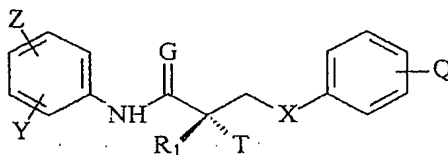


APPLICANT(S): DALTON, James T. et al.
SERIAL NO.: 10/849,039
FILED: May 20, 2004
Page 2

AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. (*Currently amended*) A metabolite of a selective androgen receptor modulator (SARM) compound, wherein said SARM is represented by the structure of formula I:



I

wherein G is O or S;

X is O;

T is OH, OR, $[-]$ -NHCOCH₃, or NHCOR;

Z is NO₂, CN, COOH, COR, NHCOR or CONHR;

Y is CF₃, F, I, Br, Cl, CN, C(R)₃ or Sn(R)₃;

Q is acetamido or trifluoroacetamido;

R is alkyl, haloalkyl, dihaloalkyl, trihaloalkyl, CH₂F, CHF₂, CF₃, CF₂CF₃, aryl, phenyl, F, Cl, Br, I, alkenyl or OH; and

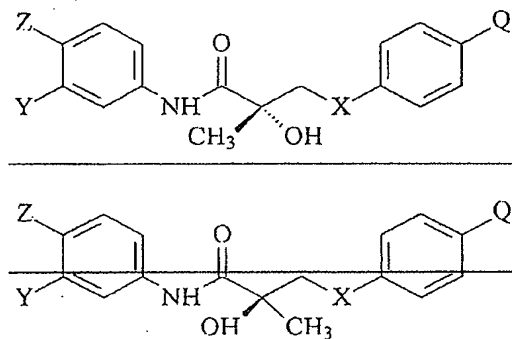
R1 is CH₃, CH₂F, CHF₂, CF₃, CH₂CH₃, or CF₂CF₃; and

wherein said metabolite is an hydroxylated, deacetylated, hydrolyzed, methylated or aminated derivative of compound of formula (I).

2. (*Original*) The selective androgen receptor modulator metabolite of claim 1, wherein G is O.

APPLICANT(S): DALTON, James T. et al.
SERIAL NO.: 10/849,039
FILED: May 20, 2004
Page 3

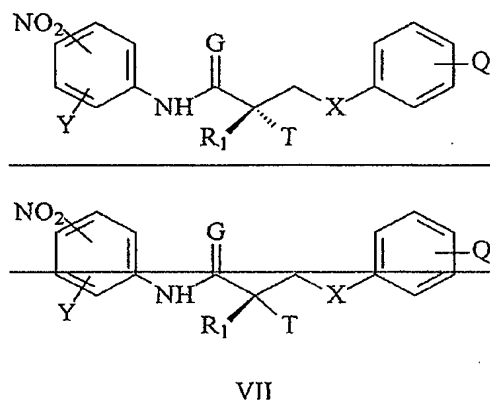
3. *(Original)* The selective androgen receptor modulator metabolite of claim 1, wherein T is OH.
4. *(Original)* The selective androgen receptor modulator metabolite of claim 1, wherein R1 is CH₃.
5. *(Original)* The selective androgen receptor modulator metabolite of claim 1, wherein Z is CN.
6. *(Original)* The selective androgen receptor modulator metabolite of claim 1, wherein Y is CF₃.
7. *(Original)* The selective androgen receptor modulator metabolite of claim 1, wherein Q is in the para position.
8. *(Original)* The selective androgen receptor modulator metabolite of claim 1, wherein Z is in the para position.
9. *(Original)* The selective androgen receptor modulator metabolite of claim 1, wherein Y is in the meta position.
10. *(Cancelled)*
11. *(Cancelled)*
12. *(Currently amended)* The selective androgen receptor modulator metabolite of claim 1, wherein said SARM is represented by the structure of formula II:



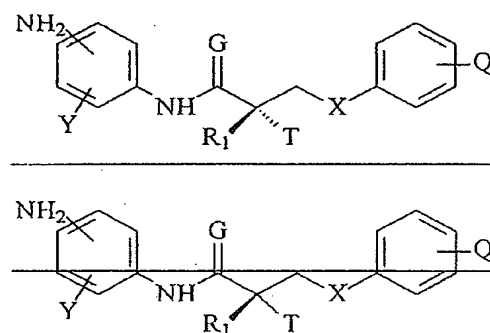
II

APPLICANT(S): DALTON, James T. et al.
SERIAL NO.: 10/849,039
FILED: May 20, 2004
Page 4

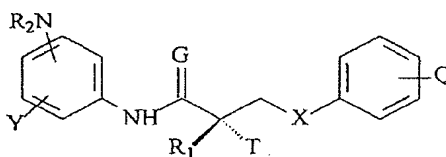
13. *(Currently amended)* The selective androgen receptor modulator metabolite of claim 1, wherein said SARM is represented by the structure of formula VII:



14. *(Currently amended)* The selective androgen receptor modulator metabolite of claim 13, wherein said metabolite is represented by the structure:



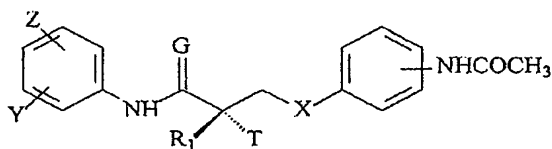
15. *(Original)* The selective androgen receptor modulator metabolite of claim 13, wherein said metabolite is represented by the structure:



APPLICANT(S): DALTON, James T. et al.
SERIAL NO.: 10/849,039
FILED: May 20, 2004
Page 5

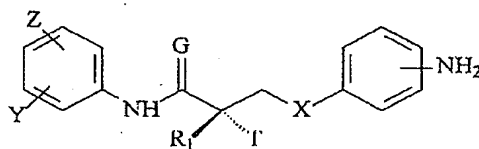
wherein NR_2 is NO, NHOH, NHOSO_3 , or NHO-glucoronide.

16. (Original) The selective androgen receptor modulator metabolite of claim 1, wherein said SARM is represented by the structure of formula VIII:



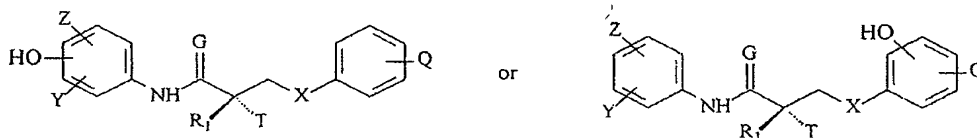
VIII

17. (Original) The selective androgen receptor modulator metabolite of claim 16, wherein said metabolite is represented by the structure:

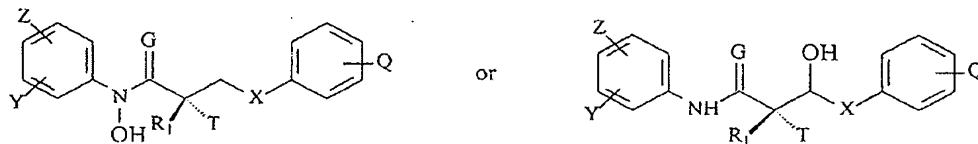


18. (Original) The selective androgen receptor modulator metabolite of claim 1, wherein said metabolite is a hydroxylated derivative of the SARM compound of formula I.

19. (Original) The selective androgen receptor modulator metabolite of claim 18, wherein said metabolite is represented by the structure:



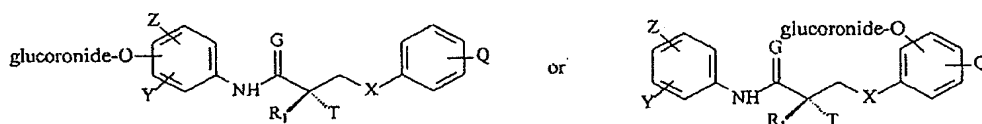
20. (Original) The selective androgen receptor modulator metabolite of claim 18, wherein said metabolite is represented by the structure:



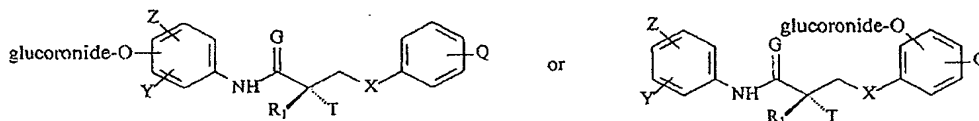
APPLICANT(S): DALTON, James T. et al.
 SERIAL NO.: 10/849,039
 FILED: May 20, 2004
 Page 6

21. *(Withdrawn)* The selective androgen receptor modulator metabolite of claim 1, wherein said metabolite is an O-glucuronide derivative of the SARM compound of formula I.

22. *(Withdrawn)* The selective androgen receptor modulator metabolite of claim 21, wherein said metabolite is represented by the structure:

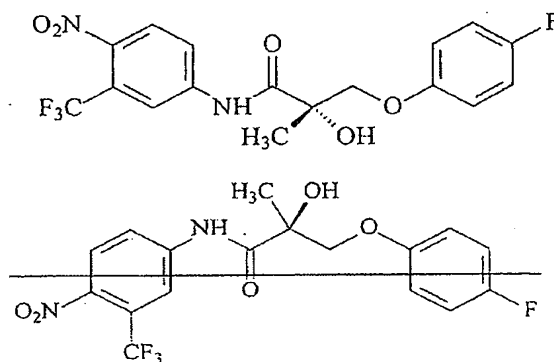


23. *(Withdrawn)* The selective androgen receptor modulator metabolite of claim 21, wherein said metabolite is represented by the structure:



24. *(Original)* The selective androgen receptor modulator metabolite of claim 1, wherein said metabolite is a methylated derivative of the SARM compound of formula I.

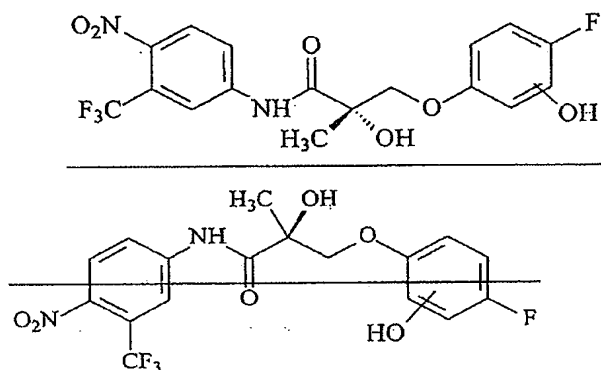
25. *(Currently amended)* The selective androgen receptor modulator metabolite of claim 1, wherein said SARM is represented by the structure of formula III:



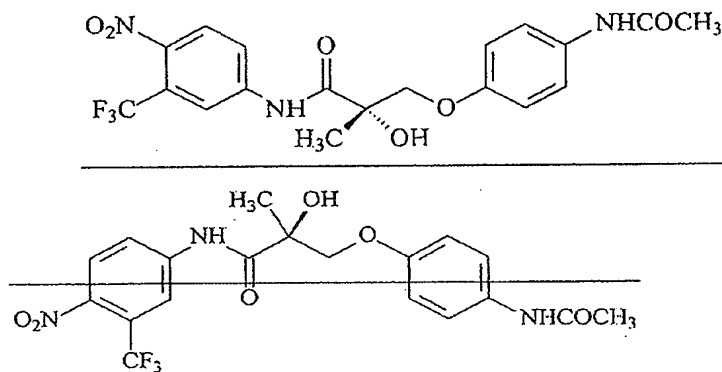
APPLICANT(S): DALTON, James T. et al.
SERIAL NO.: 10/849,039
FILED: May 20, 2004
Page 7

III

26. *(Currently amended)* The selective androgen receptor modulator metabolite of claim 25, wherein said metabolite is represented by the structure:



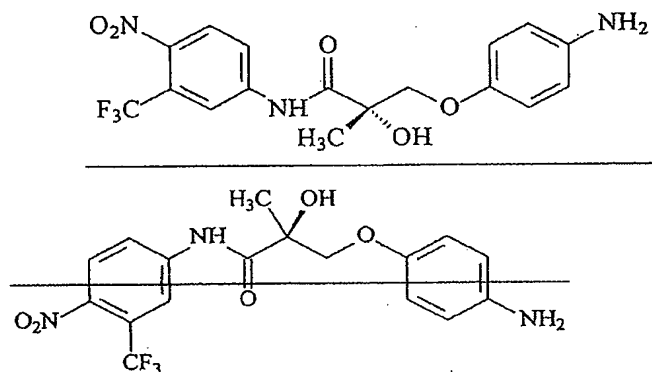
27. *(Currently amended)* The selective androgen receptor modulator metabolite of claim 1, wherein said SARM is represented by the structure of formula IV:



IV

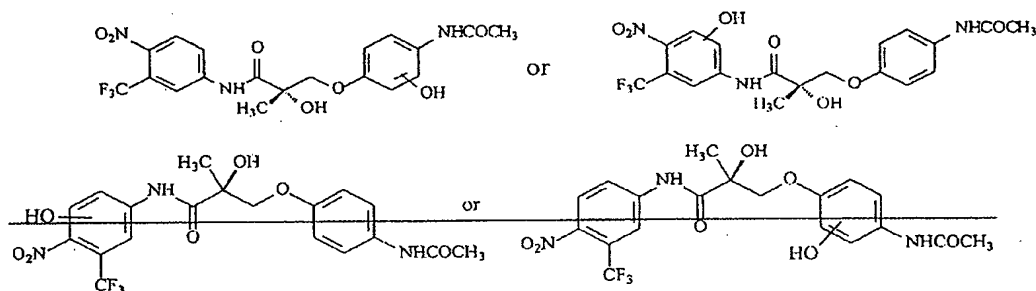
28. *(Currently amended)* The selective androgen receptor modulator metabolite of claim 27, wherein said metabolite is represented by the structure:

APPLICANT(S): DALTON, James T. et al.
 SERIAL NO.: 10/849,039
 FILED: May 20, 2004
 Page 8

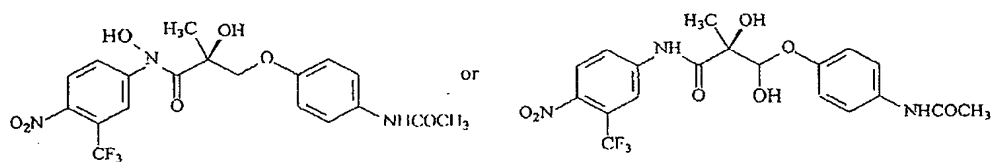


29. *(Original)* The selective androgen receptor modulator metabolite of claim 27, wherein said metabolite is a hydroxylated derivative of the SARM compound of formula IV.

30. *(Currently amended)* The selective androgen receptor modulator metabolite of claim 29, wherein said metabolite is represented by the structure:



31. *(Original)* The selective androgen receptor modulator metabolite of claim 29, wherein said metabolite is represented by the structure:



32. *(Withdrawn)* The selective androgen receptor modulator metabolite of claim 27, wherein said metabolite is an O-glucuronide derivative of the SARM compound of formula I.

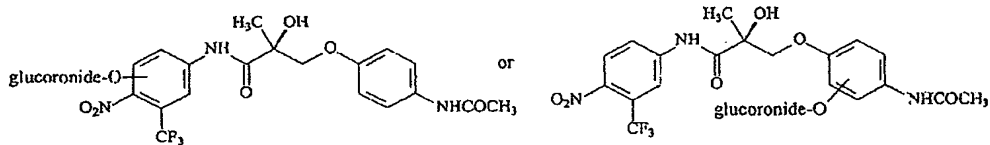
APPLICANT(S): DALTON, James T. et al.

SERIAL NO.: 10/849,039

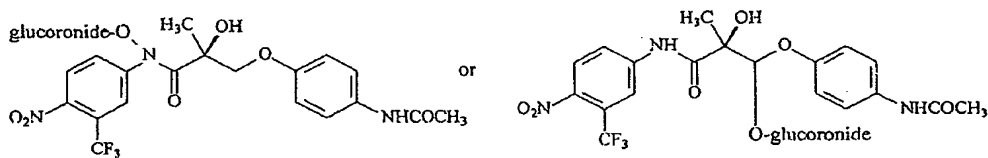
FILED: May 20, 2004

Page 9

33. *(Withdrawn)* The selective androgen receptor modulator metabolite of claim 32,



34. *(Withdrawn)* The selective androgen receptor modulator metabolite of claim 32.



35. (Original) The selective androgen receptor modulator metabolite of claim 27,

36. (Original) A composition comprising the selective androgen receptor modulator

37. (Original) A pharmaceutical composition comprising an effective amount of the

38. (Withdrawn) A method of binding a selective androgen receptor modulator

39. (Withdrawn) A method of suppressing spermatogenesis in a subject comprising

APPLICANT(S): DALTON, James T. et al.
SERIAL NO.: 10/849,039
FILED: May 20, 2004
Page 10

modulator metabolite of claim 1, in an amount effective to suppress sperm production.

40. *(Withdrawn)* A method of contraception in a male subject, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 1, in an amount effective to suppress sperm production in said subject, thereby effecting contraception in said subject.

41. *(Withdrawn)* A method of hormone therapy comprising the step of contacting an androgen receptor of a subject with the selective androgen receptor modulator metabolite of claim 1, in an amount effective to effect a change in an androgen-dependent condition.

42. *(Withdrawn)* A method of hormone replacement therapy comprising the step of contacting an androgen receptor of a subject with the selective androgen receptor modulator metabolite of claim 1, in an amount effective to effect a change in an androgen-dependent condition.

43. *(Withdrawn)* A method of treating a subject having a hormone related condition, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 1, in an amount effective to effect a change in an androgen-dependent condition.

44. *(Withdrawn)* A method of treating a subject suffering from prostate cancer, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 1, in an amount effective to treat prostate cancer in said subject.

45. *(Withdrawn)* A method of preventing prostate cancer in a subject, comprising the step of administering to said subject the selective androgen receptor modulator produg of claim 1, in an amount effective to prevent prostate cancer in said subject.

46. *(Withdrawn)* A method of delaying the progression of prostate cancer in a subject suffering from prostate cancer, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 1, in an amount effective to delay the progression of prostate cancer in said subject.

47. *(Withdrawn)* A method of preventing the recurrence of prostate cancer in a subject suffering from prostate cancer, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 1, in an amount

effective to prevent the recurrence of prostate cancer in said subject.

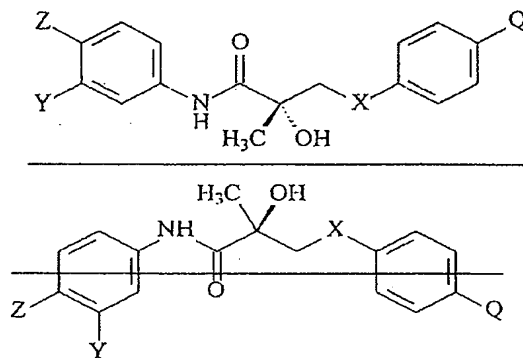
48. *(Withdrawn)* A method of treating the recurrence of prostate cancer in a subject suffering from prostate cancer, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 1, in an amount effective to treat the recurrence of prostate cancer in said subject.

49. *(Withdrawn)* A method of treating a dry eye condition in a subject suffering from dry eyes, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 1, in an amount effective to treat dry eyes in said subject.

50. *(Withdrawn)* A method of preventing a dry eye condition in a subject, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 1, in an amount effective to prevent dry eyes in said subject.

51. *(Withdrawn)* A method of inducing apoptosis in a cancer cell, comprising the step of contacting said cell with the selective androgen receptor modulator metabolite of claim 1, in an amount effective to induce apoptosis in said cancer cell.

52. *(Currently amended)* A metabolite of a selective androgen receptor modulator (SARM) compound, wherein said SARM compound is represented by the structure of formula II:



II

wherein

X is O;

Z is NO₂, CN, COOH, COR, NHCOR or CONHR;

APPLICANT(S): DALTON, James T. et al.
SERIAL NO.: 10/849,039
FILED: May 20, 2004
Page 12

Y is CF₃, F, I, Br, Cl, CN, C(R)₃ or Sn(R)₃;

Q is acetamido or trifluoroacetamido;

R is alkyl, haloalkyl, dihaloalkyl, trihaloalkyl, CH₂F, CHF₂, CF₃,
CF₂CF₃, aryl, phenyl, F, Cl, Br, I, alkenyl or OH; and

R₁ is CH₃, CH₂F, CHF₂, CF₃, CH₂CH₃, or CF₂CF₃; and
wherein said metabolite is an hydroxylated, deacetylated, methylated or
aminated derivative of compound of formula (II).

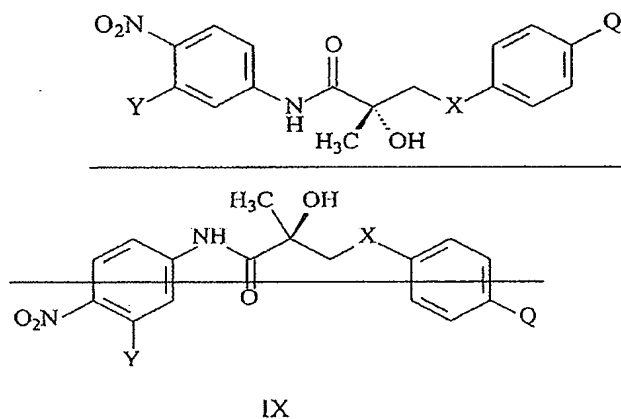
53. (Original) The selective androgen receptor modulator metabolite of claim 52,
wherein Z is CN.

54. (Original) The selective androgen receptor modulator metabolite of claim 52,
wherein Y is CF₃.

55. (Original) The selective androgen receptor modulator metabolite of claim 52,
wherein said compound is an androgen receptor agonist.

56. (Original) The selective androgen receptor modulator metabolite of claim 52,
wherein said compound is an androgen receptor antagonist.

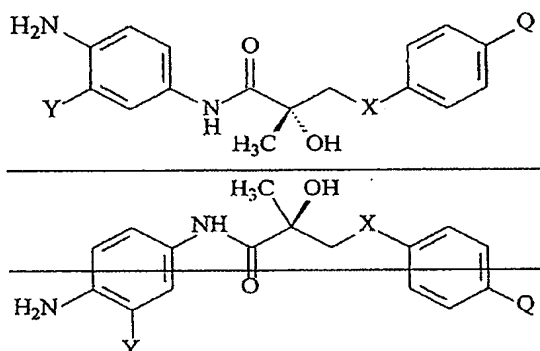
57. (Currently amended) The selective androgen receptor modulator metabolite of
claim 52, wherein said SARM is represented by the structure of formula IX:



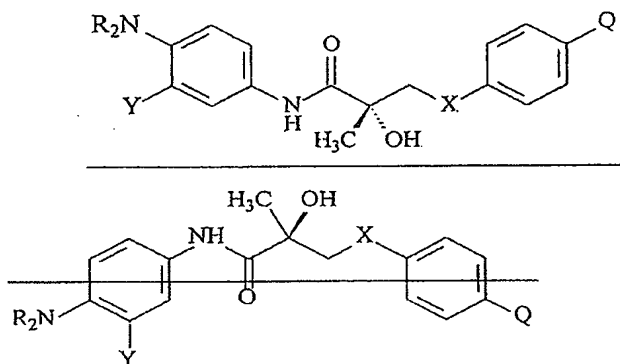
58. (Currently amended) The selective androgen receptor modulator metabolite of

APPLICANT(S): DALTON, James T. et al.
 SERIAL NO.: 10/849,039
 FILED: May 20, 2004
 Page 13

claim 57, wherein said metabolite is represented by the structure:

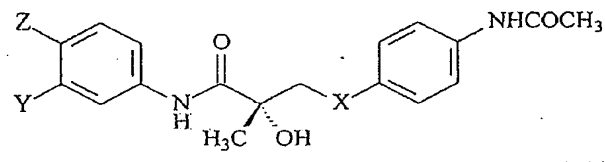


59. (Currently amended) The selective androgen receptor modulator metabolite of claim 57, wherein said metabolite is represented by the structure:

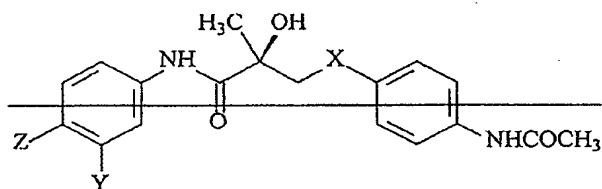


wherein NR₂ is NHOH, NO, NHOSO₃, or NHO-glucoronide.

60. (Currently amended) The selective androgen receptor modulator metabolite of claim 52, wherein said SARM is represented by the structure of formula X:

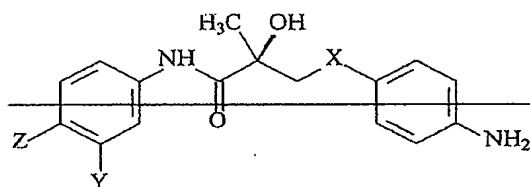
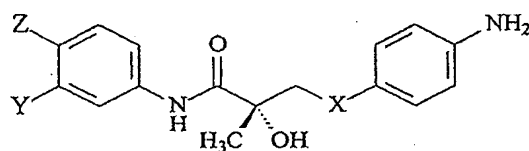


APPLICANT(S): DALTON, James T. et al.
 SERIAL NO.: 10/849,039
 FILED: May 20, 2004
 Page 14



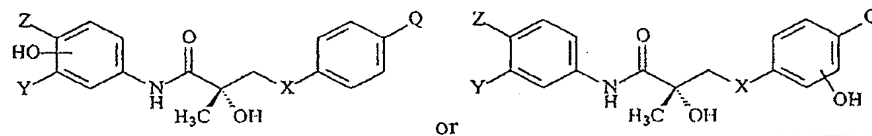
X

61. (*Currently amended*) The selective androgen receptor modulator metabolite of claim 60, wherein said metabolite is represented by the structure:

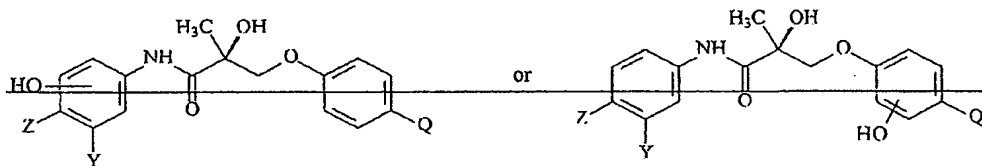


62. (*Original*) The selective androgen receptor modulator metabolite of claim 52, wherein said metabolite is a hydroxylated derivative of the SARM compound of formula II.

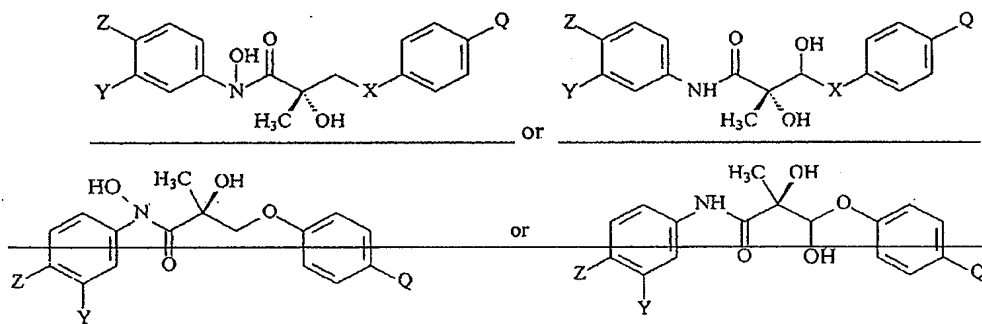
63. (*Currently amended*) The selective androgen receptor modulator metabolite of claim 62, wherein said metabolite is represented by the structure:



APPLICANT(S): DALTON, James T. et al.
 SERIAL NO.: 10/849,039
 FILED: May 20, 2004
 Page 15

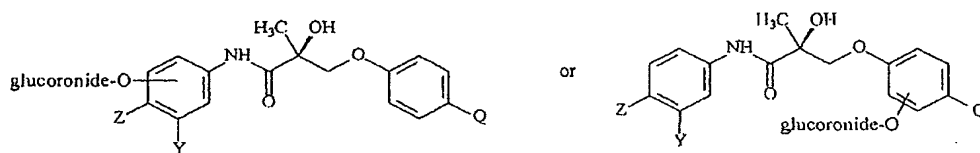


64. (*Currently amended*) The selective androgen receptor modulator metabolite of claim 62, wherein said metabolite is represented by the structure:



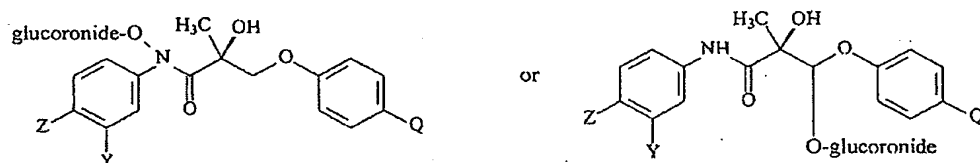
65. (*Withdrawn*) The selective androgen receptor modulator metabolite of claim 52, wherein said metabolite is an O-glucuronide derivative of the SARM compound of formula II.

66. (*Withdrawn*) The selective androgen receptor modulator metabolite of claim 65, wherein said metabolite is represented by the structure:



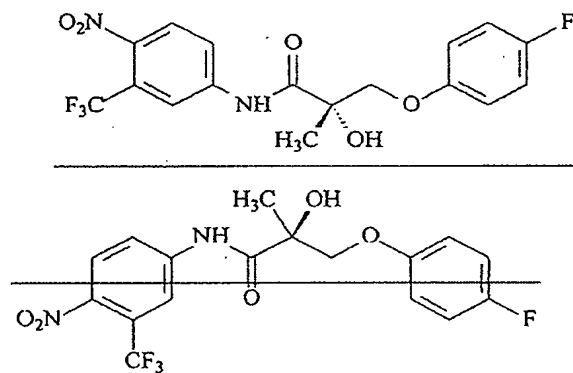
67. (*Withdrawn*) The selective androgen receptor modulator metabolite of claim 65, wherein said metabolite is represented by the structure:

APPLICANT(S): DALTON, James T. et al.
 SERIAL NO.: 10/849,039
 FILED: May 20, 2004
 Page 16



68. *(Original)* The selective androgen receptor modulator metabolite of claim 52, wherein said metabolite is a methylated derivative of the SARM compound of formula II.

69. *(Currently amended)* A metabolite of a selective androgen receptor modulator (SARM) compound, wherein said SARM compound is represented by the structure of formula III:

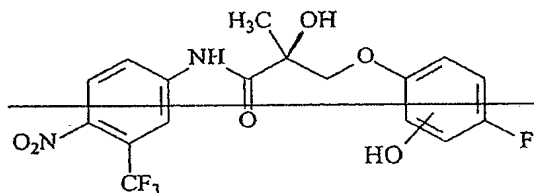
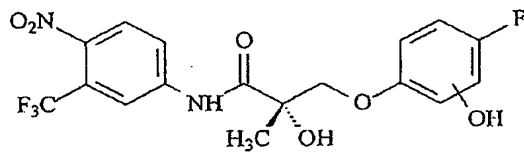


III

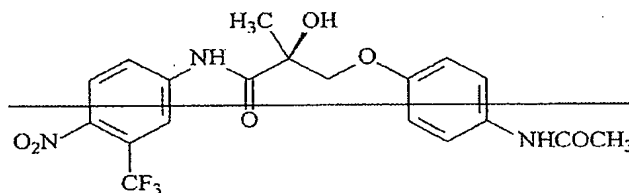
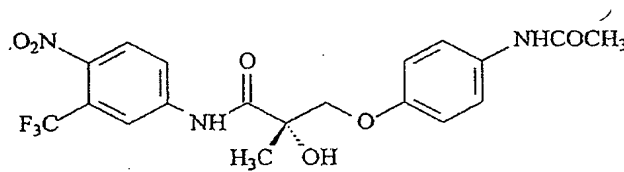
wherein said metabolite is an hydroxylated, deacetylated, methylated or aminated derivative of compound of formula (II).

APPLICANT(S): DALTON, James T. et al.
SERIAL NO.: 10/849,039
FILED: May 20, 2004
Page 17

70. (Currently amended) The selective androgen receptor modulator metabolite of claim 69, wherein said metabolite is represented by the structure:



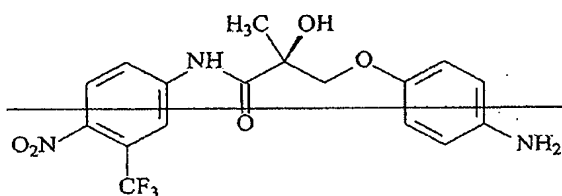
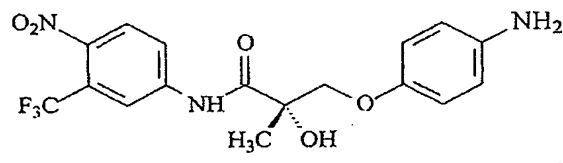
71. (Currently amended) The selective androgen receptor modulator metabolite of claim 52, wherein said SARM is represented by the structure of formula IV:



IV

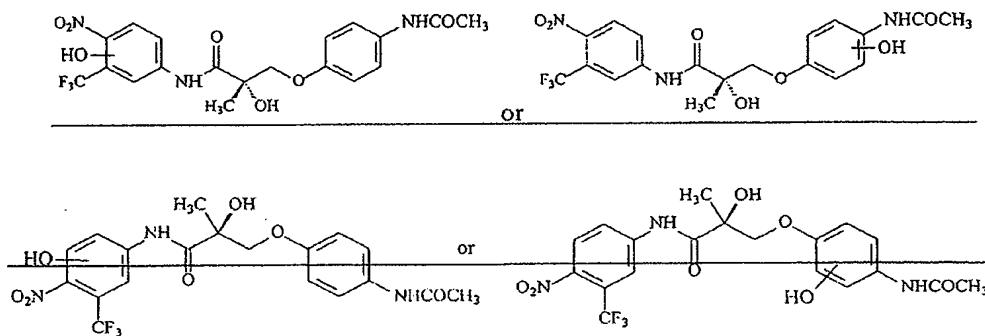
72. (Currently amended) The selective androgen receptor modulator metabolite of claim 71, wherein said metabolite is represented by the structure:

APPLICANT(S): DALTON, James T. et al.
 SERIAL NO.: 10/849,039
 FILED: May 20, 2004
 Page 18



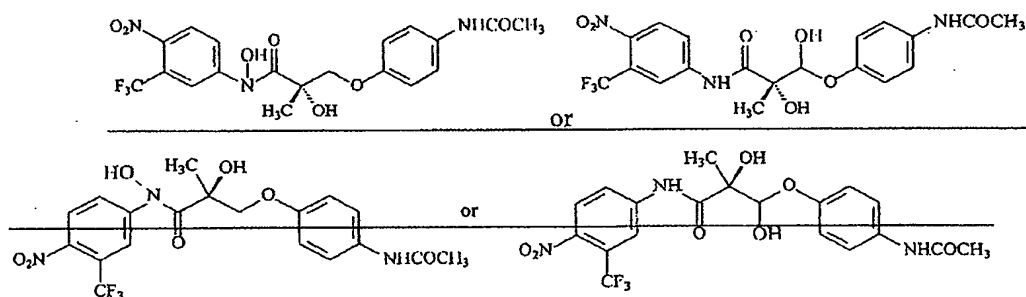
73. (Original) The selective androgen receptor modulator metabolite of claim 71, wherein said metabolite is a hydroxylated derivative of the SARM compound of formula IV.

74. (Currently amended) The selective androgen receptor modulator metabolite of claim 73, wherein said SARM metabolite is represented by the structure:



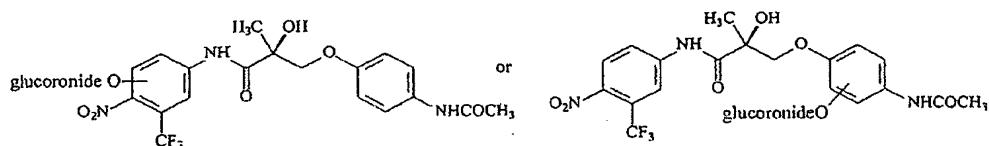
75. (Currently amended) The selective androgen receptor modulator metabolite of claim 73, wherein said metabolite is represented by the structure:

APPLICANT(S): DALTON, James T. et al.
 SERIAL NO.: 10/849,039
 FILED: May 20, 2004
 Page 19

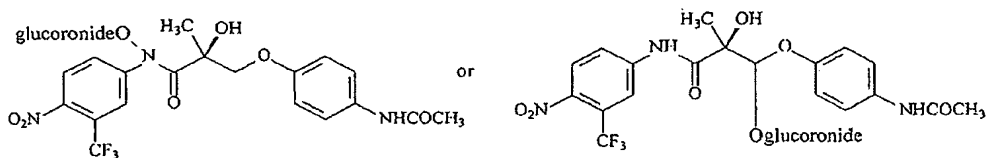


76. *(Withdrawn)* The selective androgen receptor modulator metabolite of claim 71, wherein said metabolite is an O-glucuronide derivative of the SARM compound of formula IV.

77. *(Withdrawn)* The selective androgen receptor modulator metabolite of claim 76, wherein said metabolite is represented by the structure:



78. *(Withdrawn)* The selective androgen receptor modulator metabolite of claim 76, wherein said metabolite is represented by the structure:



79. *(Original)* The selective androgen receptor modulator metabolite of claim 71, wherein said metabolite is a methylated derivative of the SARM compound of formula IV.

80. *(Original)* A composition comprising the selective androgen receptor modulator metabolite of claim 52; and a suitable carrier or diluent.

APPLICANT(S): DALTON, James T. et al.
SERIAL NO.: 10/849,039
FILED: May 20, 2004
Page 20

81. *(Original)* A pharmaceutical composition comprising an effective amount of the selective androgen receptor modulator metabolite of claim 52; and a pharmaceutically acceptable carrier or diluent.

82. *(Withdrawn)* A method of binding a selective androgen receptor modulator compound to an androgen receptor, comprising the step of contacting the androgen receptor with the selective androgen receptor modulator metabolite of claim 52, in an amount effective to bind the selective androgen receptor modulator metabolite to the androgen receptor.

83. *(Withdrawn)* A method of suppressing spermatogenesis in a subject comprising contacting an androgen receptor of the subject with the selective androgen receptor modulator metabolite of claim 52, in an amount effective to suppress sperm production.

84. *(Withdrawn)* A method of contraception in a male subject, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 52, in an amount effective to suppress sperm production in said subject, thereby effecting contraception in said subject.

85. *(Withdrawn)* A method of hormone therapy comprising the step of contacting an androgen receptor of a subject with the selective androgen receptor modulator metabolite of claim 52, in an amount effective to effect a change in an androgen-dependent condition.

86. *(Withdrawn)* A method of hormone replacement therapy comprising the step of contacting an androgen receptor of a subject with the selective androgen receptor modulator metabolite of claim 52, in an amount effective to effect a change in an androgen-dependent condition.

87. *(Withdrawn)* A method of treating a subject having a hormone related condition, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 52, in an amount effective to effect a change in an androgen-dependent condition.

88. *(Withdrawn)* A method of treating a subject suffering from prostate cancer, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 52, in an amount effective to treat prostate cancer in

APPLICANT(S): DALTON, James T. et al.
SERIAL NO.: 10/849,039
FILED: May 20, 2004
Page 21

said subject.

89. *(Withdrawn)* A method of preventing prostate cancer in a subject, comprising the step of administering to said subject the selective androgen receptor modulator produg of claim 52, in an amount effective to prevent prostate cancer in said subject.

90. *(Withdrawn)* A method of delaying the progression of prostate cancer in a subject suffering from prostate cancer, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 32, in an amount effective to delay the progression of prostate cancer in said subject.

91. *(Withdrawn)* A method of preventing the recurrence of prostate cancer in a subject suffering from prostate cancer, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 52, in an amount effective to prevent the recurrence of prostate cancer in said subject.

92. *(Withdrawn)* A method of treating the recurrence of prostate cancer in a subject suffering from prostate cancer, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 52, in an amount effective to treat the recurrence of prostate cancer in said subject.

93. *(Withdrawn)* A method of treating a dry eye condition in a subject suffering from dry eyes, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 52, in an amount effective to treat dry eyes in said subject.

94. *(Withdrawn)* A method of preventing a dry eye condition in a subject, comprising the step of administering to said subject the selective androgen receptor modulator metabolite of claim 52, in an amount effective to prevent dry eyes in said subject.

95. *(Withdrawn)* A method of inducing apoptosis in a cancer cell, comprising the step of contacting said cell with the selective androgen receptor modulator metabolite of claim 52, in an amount effective to induce apoptosis in said cancer cell.